

The Influence of the COVID-19 Pandemic on Pediatric Firearm Injuries

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Abbreviations: National Instant Criminal Background Check System (NICS)

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In this issue of *Pediatrics*, Cohen et al.¹ address the epidemic of pediatric firearm injuries through the lens of the COVID-19 pandemic. The authors utilized the National Instant Criminal Background Check System (NICS) to identify new gun purchases and the Gun Violence Archive to identify firearm injuries in children under the age of 12. The authors conclude that there has “been a surge in firearm injuries in young children and inflicted by young children” during the first six months of the COVID-19 pandemic. The authors also report these incidents correlate with an increase in new firearm ownership. Finally, the authors suggest that temporary national policies should be enacted to address firearm safety for children in the context of the pandemic.

The study assumes that NICS background checks are a proxy for new firearm ownership. Other studies have found that the increase in NICS background checks was likely in part due to purchases made by first time gun owners, however it is difficult to determine what percentage of firearm purchases were made by new gun owners.² Increases in firearm sales during the pandemic could be due to various reasons from “boredom shopping” by gun collectors to a response to the increased coverage of violence in the media. Being able to identify the actual number of new gun owners and injury rates in children in their household is necessary to be able to reliably determine whether new gun owners put their children at increased risk for firearm injury. Furthermore, given the prevalence of gun ownership in the United States, new gun owners may be more informed about gun safety, particularly if there are children in the household. In response to the increase in first time gun purchases, the firearm industry launched a number of online safety classes to help educate new gun owners.³ Understanding the motivation for purchasing a firearm and the safety education level of new gun owners during the pandemic, as opposed to existing gun owners, is necessary to propose effective gun safety and education policies.

The authors provide several reasons why children may be at increased risk for firearm injury during the COVID-19 pandemic. The primary reasons they suggest are due to in-person school closures and decreased supervision. Although it is likely many older children and adolescents had decreased supervision, the bulk of the study cohort (children ages 0-11) likely were dependent on a caregiver. Additionally, remote work for parents might have mitigated the risk of leaving children unsupervised. Finally, evidence suggests many families limited their children's ability to socialize outside the home.⁴ The authors state more children are responsible for inflicting firearm injuries on children during the pandemic. However, increased social distancing and school closures would likely limit unintentional firearm injuries children living in separate households inflict on each other. Another possibility is that firearm injuries inflicted by young children are actually self-inflicted.⁵ Indeed, past studies have found rates of self-inflicted injuries in young adolescent are increasing.⁶ Social isolation and removal of peer support can greatly impact the mental health of children, and COVID-19 policies may potentially increase the number of self-inflicted gunshot wounds in children, particularly young adolescents.

Decreased supervision may also differentially impact subgroups of the population. Families with increased economic pressure and the inability to work remotely may have to leave children unattended more often.⁷ Children in these circumstances may be more likely to play outside the home and be injured in their neighborhoods.^{8,9} Many communities have experienced increases in violence during the pandemic, which may also correlate with increases in children being unintentionally wounded.

Another explanation for increases in the overall number of firearm injuries may be that child abuse is increasing as parents become more stressed with the challenges of caretaking while dealing with economic pressures of remote work or unemployment. The start of the pandemic

saw an increase in domestic violence, and it is reasonable to suspect that this extends to child abuse.¹⁰ Without intervention from schools or individuals outside the home, child abuse is more likely to go unreported and could possibly escalate to the point where a family member injures a child with a firearm.^{11, 12}

Ultimately, it is likely that policies meant to contain the spread of COVID-19, such as school closures, have had unintended downstream consequences including increased firearm injuries in children by increasing rates of self-inflicted injuries, limiting the ability of teachers or guidance counselors to report suspected abuse, and allowing for the escalation of abuse in households practicing social distancing. As a result, the imperative for clinicians to remain vigilant for signs of child abuse in their patients is heightened. They should also work to have conversations with children and their caregivers about mental health, home safety, and their perception of neighborhood safety. Although unintentional injuries in children whose caregivers are new firearm owners may have increased, physicians must address factors that lead to injury in all families, both during the pandemic and beyond

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